EFFECTIVENESS OF GUIDED IMAGERY INTERMS OF PAIN AND SLEEP QUALITY AMONG THE PATIENTS WITH BREAST CANCER AT SELECTED HOSPITAL IN TRICHY DISTRICT

By

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Reg. No: 30106203

A DISSERTATION SUBMITTED TO

THE TAMILNADU DR. M. G. R. MEDICAL UNIVERSITY, CHENNAI,

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE

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CERTIFICATE

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ABSTRACT

A study to evaluate the effectiveness of guided imagery in terms of pain and sleep quality among the patients with breast cancer at selected Hospital in Trichy District.

The study was conducted at Dr.G.V.N Cancer Cure Centre, Trichy. Pre experimental one group pre test and post test design was used for this study. Permission was obtained from the director of the hospital and data collection was done over a period of 4 weeks. The investigator had selected 35 patients with breast cancer through convenience sampling technique. Oral consent was obtained. In pretest, Numerical pain rating scale was used for assessing the level of pain and Groningen sleep quality scale for assessing the level of sleep quality. Then the guided imagery administered to the subjects with audio visual stimulation from the 2^{nd} day. The investigator administered guided imagery to the subjects for 20 minutes, 2 times a day for 3 consecutive days. Then the post test pain was assessed every day evening after intervention. The sleep quality was assessed in the next day morning average score of 3 post test was taken for analysis. Descriptive and inferential statistics were used to analyze the findings of the study.

There was a significant difference found ($P< 0.01$) between the level of pain and level of sleep quality. The mean pre test and post test score of level of pain was 5.51(±2.09), 0.48(±0.24) and sleep quality was 6.66 (±3.79), 1.96(±1.61) respectively.

There was a positive correlation found between the post test level of pain and sleep quality ($r=0.7$).There was a significant association ($P<0.05$) in the post test level of pain with selected demographic variables like food habits and no significant association in the post test level of sleep quality of the subjects with their selected demographic variables.

The findings of the study shows that guided imagery helps to decrease the level of pain and increase the sleep quality of the patients with breast cancer. The study helps the oncology nurse to motivate the subjects to practice the guided imagery in their daily activities.

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CHAPTER-I

INTRODUCTION

“Women’s Health Is Universal Health”

- **Chudigarh. A**

Cancer is a lonely journey travelled not only by the victim but also the family that is closely knitted to him/her. Bringing a ray of hope into this darkness is a challenge a nurse can take up, which may enable the patient and the family to rise up with a rejuvenated spirit to face this uphill task.

According to Frank(1991)

“Whatever happens when my body breaks down
happens not just to that body but also, to my life which
is lived in that Body when body breaks down, so does
the life even when medicine can fix the body that does
not always, put the life break together again”

Cancer is a life threatening disease that often causes serious psychological concern it brings great success to patients affecting the quality of life of patients. Patients may use different coping to reduce stress, pain and to keep themselves healthy physically and psychologically. **(Guoping, 2005)**

According to the World Cancer Report, Cancer rates could further increase by 50% to 15 million new cases in the year 2020. **(Paul Kleihues, 2010)**

The estimated number of new cancers in India per year is about 7 lakhs and over 3.5 lakhs people die of cancer each year. Leading Sites of Cancer - Female: Cancer of the cervix, uteri continues to be the most predominant site of cancer and

accounted for 26.7% of all cancers in females. Cancer of the breast is the second most common site (16.6%) followed by cancers of oral cavity (11%), Oesophagus (5.7%) and ovary (5%). Over the years, a gradual decrease in the proportion of cervical cancers and marginal but steady increase in the numbers and relative proportion of breast cancers is observe. **(GLOBOCAN, 2008)**

Breast cancer is the second leading cause of death today. It is the most common cancer among women. It can also occur in men, but less common. 80% of breast cancers occur in women older than age 50. In 30s, have a one in 233 chance of developing breast cancer. By age 85, chance is one in eight. (**Gupta, 2010**)

Pain is much more than a physical sensation caused by a specific stimulus. Pain is defined whatever the person says it does. This clinical definition recognizes pain as a personal, private experience. This definition states that pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage. **(Mc Caffery, 2001)**

Cancer pain has been described as “a nociceptive mosaic composed of acute pain, chronic pain, tumour-specific pain and treatment-related pain, cemented together by ongoing psychological responses of distress and suffering”.**(Goudas, 2001)**

Sleep is a complex process of restoration &renewal for the body. It is not a` passive process or “switching off” of body functions**. (Melisa, 2010)**

Sleep is a basic human need, it is a universal process common to all people. Historically, sleep was considered to be a state of unconsciousness more recently, sleep has come to be considered a state of consciousness in which individual’s

perception and reaction to the environment are decreased .sleep is characterized by minimal physical activity, variable levels of unconsciousness, changes in the body's physiologic processes, and decreased responsiveness to external stimuli. **(kozier, 2007)**

Sleep is often defined as a period of time during which bodily functions are partially suspended and consciousness is partially or completely interrupted. Temperature, Pulse, Blood Pressure, and Respiration decrease; kidneys are less productive and digestive secretions diminish. As muscle relax, the BMR declines and most reflex disappear or weaken, except for the cough reflex. Sleep renews the body's energy**. (Karen, 2009)**

Different types of non pharmacological modalities are available for pain relief such as meditation, progressive relaxation training, autogenic training, rhythmic breathing, operant conditioning, guided imagery, hypnosis, acupressure, biofeedback, and cutaneous stimulation. **(Brunner, 2004)**

Guided Imagery relieves pain through several mechanisms. First using imagery helps clients distract themselves from pain, which may increase their tolerance. Second imagery may produce a relaxation response that cause muscle relaxation and thereby relieves pain. Lastly the image can be a healing one designed not only to relieve pain, but to possibly diminish the source of pain. **(Luckmann, 2004)**

Guided imagery is a technique that utilizes stories or narratives to influence the images and patterns that the mind creates. Often, these stories or narratives are combined with background music. **(Jane hart, 2008)**

Guided imagery is “any perception that comes through any of the senses including sight, sound, smells and feel**.**”**(Belleruth Naparstek, 2010)**

Nurses play a vital role in pain management by interacting with the patient as a total person, believing what the patient says about his experiences and respecting the reaction and attitudes towards pain. She uses a variety of patients sensory modalities for the purpose of conveying the information about his pain experience to him. A Nurse can teach the patient and his family about the patients experience and to assist the other people in reaching their maximum potential for helping the patient with his pain experience. **(Long C Barbara, 2004)**

NEED FOR THE STUDY

Worldwide annually about 1.3 million women will be diagnosed with breast cancer and about 4,05,000 will die from the disease**.** Nearly 40,000 women will die of breast cancer in 2011. **(American cancer society, 2011)**

The incidence of breast cancer in India on the rise and is rapidly becoming the number one cancer in female pushing the cervical cancer to the second spot. It varies between urban and rural women. One in 22 women in India is likely to suffer from a breast cancer during her life time. (**ICMR, 2010)**

Incidence range for breast cancer is 95 per 100,00 in more developed countries and 20 per 100,00 in less developed countries. **(College Of Radiology, 2008)**

Globally, breast cancer accounts for an estimated 1.4 million cases each year. It is the most common kind of cancer among women with more than half of the 400,000 breast cancer deaths occurring in low and middle income countries. The highest number of breast cancer deaths was recorded in Uttar Pradesh (8,882),

followed by Maharashtra (5,064), Bihar (4,518), West Bengal (4,095), Andhra Pradesh (3,863), Madhya Pradesh (3,179) and Rajasthan (3,097).More than 2,632 deaths were recorded in Gujarat. In 2010, 810 breast cancer deaths were recorded in Delhi as against 779 in 2009 and 749 in 2008. **(Breast cancer organization, 2010)**

Population based survival studies showed that the 5 years relative survival for breast cancer has 46.8% in Bangalore, 45.5% in Chennai and 55.1% in Mumbai**. (Ramya Kannan, 2010)**

In Chennai, the total cancer burden is predicted to increase by 32% by 2012–16 compared with 2002–06, with 19% due to changes in cancer risk and a further 13% due to the impact of demographic changes. The annual cancer burden predicted for 2012–16 is 6100 for Chennai, translating to 55 000 new cases per year statewide (in Tamil Nadu). Breast cancer would dislodge cervical cancer as the top-ranking cancer in the state, while lung, stomach and large bowel cancers would surpass cervical cancer in ranking in Chennai by 2016. **(Swaminathan, 2011)**

Lung cancer is the most common cancer worldwide, accounting for 1.2 million new cases annually; followed by cancer of the breast, just over 1 million cases; colorectal, 940,000; stomach, 870,000; liver, 560,000; cervical, 470,000; esophageal, 410,000; head and neck, 390,000; bladder, 330,000; malignant non-Hodgkin lymphomas, 290,000; leukemia, 250,000; prostate and testicular, 250,000; pancreatic, 216,000; ovarian, 190,000; kidney, 190,000; endometrial, 188,000; nervous system, 175,000; melanoma, 133,000; thyroid, 123,000; pharynx, 65,000; and Hodgkin disease, 62,000 cases**. (WHO, 2009)**

Cancer patients with pain report significantly lower levels of performance status than those without pain. **(Line, 2003)**

Pain from cancer tends to increase in severity as disease progresses and a recent systematic review concluded that 'pain was prevalent in cancer patients: 64% in patients with metastatic or advanced stage disease, 59% in patients on anticancer treatment and 33% inpatients after curative treatment. More than one-third of the patients with pain in the reviewed articles graded their pain as moderate or severe'. **(vanden Beuken, 2007)**

Pain suggested that about one third of patients currently receiving cancer treatment experience moderate to severe pain and 60% to 90% of people with advanced disease report a similar amount. However, a recent study from the WHO reports that 70%to 90% of all cancer pain controlled by complementary alternative medicine. **(Karra bucci , 2004)**

Sleep-wake disturbance is a prevalent issue affecting patients with cancer, with incidence rates ranging from 30%-75%. **(Berger, 2005)**

Sleep-wake disturbances in patients with cancer may occur alone or as part of a symptom cluster, with the most common cluster being fatigue, pain, and mood. **(Miaskowski , 1999)**

Guided Imagery is a technique that uses one's mind and senses to help them connect to their body, guiding overall self into a relaxed state. Breast cancer patients may use guided imagery for pain management, stress relief and to promote better sleep. (**PamStephan, 2007)**

Progressive muscle relaxation therapy combined with guided imagery has the potential to promote relief of pain. The techniques appear to produce a relaxation that may break the pain, muscle tension, anxiety cycle and facilitate pain relief through a calming effect. This technique seems to provide a self care strategy that a limited extent shifts the focus of control from the clinician. **(Sloman, 1998)**

Guided imagery is an important alternative to pharmacotherapy, which has greater safety and far fewer complications, requires lesser precautions and contra indications. It is particularly suited to the current health care climate, where patients and providers value cost effective mind and body medicine, improved medical self care and empowering approaches to health care. Guided imagery may also help patients to strengthen their immune system and enhance their own healing**. (Lambert, 2004)**

Based on the above literature review, the investigator felt that there was a need to evaluate the effect of guided imagery in terms of pain reduction and improve sleep among the breast cancer patients who are admitted at Dr.G.V.N Cancer cure centre. This is particularly suited to Indian health care climate, where patients and providers value cost effectiveness. However, very few such attempts have been made in India to evaluate the effect of guided imagery. The present study was undertaken to add evidence based information in the field of oncology nursing care in the reduction of pain associated with patients with breast cancer in Dr.G.V.N Cancer cure centre at Trichy District .

Statement of the problem

A study to evaluate the effectiveness of guided imagery in terms of pain and sleep quality among the patients with breast cancer at selected Hospital in Trichy District.

Objectives

- To assess the level of pain before and after guided imagery among the patients with breast cancer.
- To assess the level of sleep quality before and after guided imagery among the patients with breast cancer.
- To evaluate the effectiveness of guided imagery in terms of pain and sleep quality among the patients with breast cancer.
- To correlate the post test level of pain score with the post test level of sleep quality score among the patients with breast cancer.
- To associate post test level of pain with the selected demographic variables of patients with breast cancer.
- To associate post test level of sleep quality with the selected demographic variables of patients with breast cancer.

Hypothesis

$H\text{-}_1$ There will be a significant difference in the level of pain and level of sleep quality before and after guided imagery among the patients with breast cancer at $P < 0.05$ level of significance.

$H\text{-}_2$ There will be a significant relationship between the post test level of pain and post test level of sleep quality among the patients with breast cancer.

H_{-3} There will be a significant association between the post test level of pain and selected demographic variables among the patients with breast cancer at $P < 0.05$ level of significance.

H_{-4} There will be a significant association between the post test level of sleep quality and selected demographic variables among the patients with breast cancer at $P < 0.05$ level of significance.

Operational Definitions

Effectiveness

It refers to the statistically significant change in the level of pain and level of sleep quality among the patients with breast cancer after guided imagery.

Guided Imagery

It is a technique administered to the patients with breast cancer using simple visualization of natural sceneries with audio and video stimulation. It is given for twenty minutes and two times a day for three consecutive days.

Pain

It refers to unpleasant feeling expressed by patients with breast cancer as measured by Numerical pain rating scale.

Sleep Quality

It is the oral statement of patients with breast cancer about their sleep pattern during the previous day as measured by the Groningen sleep quality scale.

Patients with breast cancer

In this study the Females who are diagnosed to have breast cancer and who are in the fourth stage, having severe pain and metastasis to other organs.

Assumptions

- All the clients who are diagnosed to have breast cancer may experience pain and decreased sleep quality.
- Guided imagery reduces pain and improve sleep quality to enhance physical and psychological well being.
- Guided imagery has no adverse effects on the patients with breast cancer.
- Control of physical symptoms contributes to better quality of life of patients with breast cancer.

Delimitations

- The study was conducted only among participants from Dr.G.V.N Cancer Cure Centre, Trichy.
- The study was limited to 4 weeks only.

Conceptual Framework

Conceptual framework is a set of interrelated that are assembled together in some rational scheme in virtue of their relevance to a common theme conceptual framework help to stimulate research and extensive knowledge. **(Polit, 1999)**

The present study is focused to evaluate the effectiveness of guided imagery in terms of pain and sleep quality among the patients with breast cancer**.** The framework for the study is based on **"king's Goal Attainment Model".**

IMOGENE KING'S GOAL ATTAINMENT THEORY (1971)

1) Perception

Person's representation of the reality. Here the investigator's perception is the need to attain reduction in level of pain and improve sleep quality among the patients with breast cancer.

2) Judgment

The investigator judge to minimize the level of pain and improve sleep quality by administration of guided imagery.

3) Action

The investigator action is planning to administer guided imagery to patients with breast cancer.

4) Interaction

Refers to verbal and non verbal behavior of individuals and environment or between two or more individuals. It involves goal directed perception and communication. In this study, the investigator administer guided imagery to patients with breast cancer by conducting pretest.

5) Reaction

In this study the investigator administer guided imagery to patients with breast cancer to attain reduction in level of pain and improvement in sleep quality.

6) Transaction

It refers to attainment of goal in a way of assessing level of pain and level of sleep quality by the post test score.

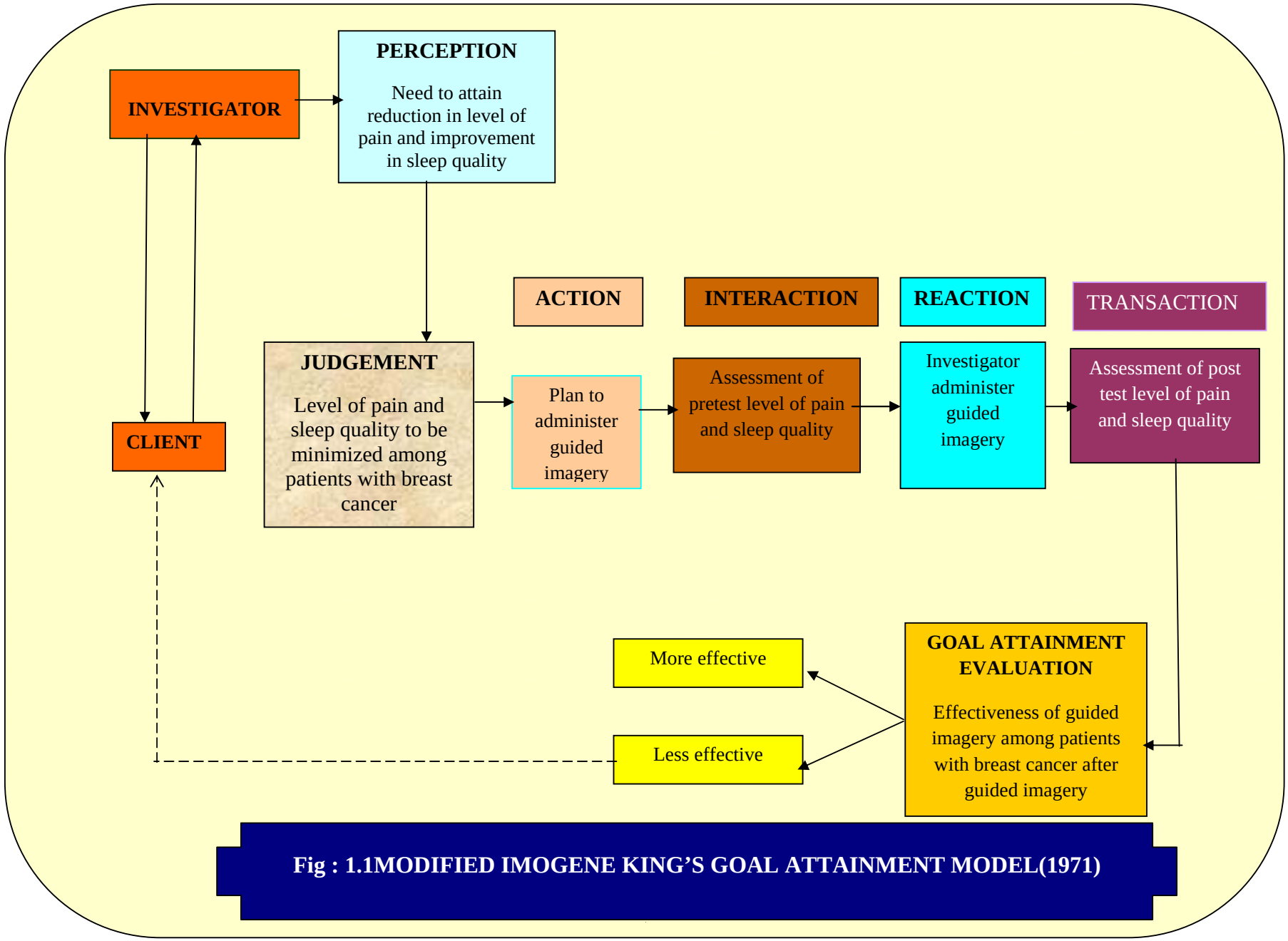

Fig : 1.1MODIFIED IMOGENE KING'S GOAL ATTAINMENT MODEL(1971)

CHAPTER-II

REVIEW OF LITERATURE

The review of literature entails systematic identification, location, scrutiny, and summary of the written material that contains information relevant to the research topic was done to gain insight and to collect maximum information for laying the foundation of the study.

It is an important step in the development of a research project. It serves as a frame work of reference for future studies. Literature relevant to this study was reviewed and has been arranged as follows;

Section-I : Literature related to breast cancer

Section-II : Literature related to guided imagery

Section-III : Literature related to guided imagery on pain and sleep quality

LITERATURE RELATED TO BREAST CANCER

Heijer .V and Seynaeve.C, (2012) conducted a study on the impact of social and personal resources on psychological distress in women at risk for hereditary breast cancer. Objective of the study is to evaluate whether social and personal resources were independently related to psychological distress and to examine the interrelationships of social and personal resources in women at risk for hereditary breast cancer. Demographics were assessed in 222 high-risk women, having either for regular surveillance or prophylactic surgery. Results showed that both personal and social resources were independently associated with psychological distress and the associations between social resources and psychological distress were partially mediated by personal resources.

Amir.E, Miller.N, Geddie.W, Freedman.O and Kassam .F, (2011) conducted a prospective study to evaluate the impact of tissue confirmation of metastatic disease in patients with breast cancer. To identify decisions about treatment for women with metastatic breast cancer are usually based on the estrogen (ER), progesterone (PgR), and human epidermal growth factor receptor 2 (HER2) status of the primary tumor. The treating oncologist indicated a treatment plan before and after biopsy to determine whether the result influenced management. Patients were followed up for progression or death. Results showed that 121 women undergoing biopsy, 80% could be analyzed for receptor status. Discordance in ER, PgR, and HER2 between the primary and the metastasis was 16%, 40%, and 10%, respectively.

Berghoff.A, Bago-Horvath.Z, DeVries.C, (2011) conducted a study on brain metastases free survival differs between breast cancer subtypes. Objective of the study is to compare brain metastases free survival (BMFS) of breast cancer subtypes in patients treated between 1996 until 2010. Brain metastases free survival curves were estimated with the Kaplan-Meier method and compared with the log-rank test. Brain metastases free survival in triple-negative breast cancer, as well as in HER-2-positive/ER-negative, is significantly shorter compared with HER-2/ER co-positive or luminal tumours, mirroring the aggressiveness of these breast cancer subtypes.

Kwan .ML, Chen .WY, Kroenke .CH, (2011) conducted a study on pre diagnosis body mass index and survival after breast cancer. The study was conducted among 14,948 breast cancer patients were drawn from prospective cohorts. Mortality were estimated using delayed entry Cox proportional hazards models. Both underweight (HR=1.59; 95% CI:1.18,2.13) and morbidity obese women (HR=1.81;95% CI:1.42,2.32) had the greater risk of overall mortality compared with

normal weight (18.5-24.9 kg/m) women. Severe obesity (HR=1.09; 95% CI:0.88,1.36)and obesity (HR=1.11;95% CI:0.97,1.27)were related to small non significant increased risks.

McGinty.HL, Goldenberg .JL, Jacobsen .PB, (2011) conducted a corelational study on threat appraisal with coping appraisal to fear of cancer recurrence in breast cancer survivors. This study examined the extent to which the interaction of threat appraisal and coping appraisal accounted for differences in for in cancer patients who recently completed treatment. A sample of 155 early stage breast cancer patients were selected for this study. Results showed that threat appraisal accounted for 30% of the variance in for ($P < 0.001$) while coping appraisal accounted for 0% ($P = 0.64$).

Su .FH, Chang .SN, Chen .PC, Sung .FC, (2011) conducted a study on association between chronic viral hepatitis infection and breast cancer risk. A case control study was done among 1,958 patients with newly diagnosed breast cancer. A randomly selected, age-matched cohort of 7,832 subjects without cancer was selected for comparison. There were no significant differences in the prevalence of hepatitis C virus (HCV) infection, hepatitis B virus (HBV), or the prevalence of combined HBC/HBV infection between breast cancer patients and control subjects ($p = 0.48$). Multivariable logistic regression analysis, however, revealed that age <50 years was associated with a 2-fold greater risk of developing breast cancer (OR = 2.03, 95% CI = 1.23-3.34). HCV infection, but not HBV infection, appears to be associated with early onset risk of breast cancer in areas endemic for HCV and HBV.

Raina.V, M Kunjahari . NK, Shukla.S, (2011) conducted a study on the outcome of combined modality treatment including neoadjuvant chemotherapy among 128 cases of locally advanced breast cancer patients. Results showed that Patients with stages IIIA, IIIB, and IIIC were included. LABC comprised of 26.24% (609 patients) of new patients. One hundred and twenty-eight (31.1%) patients received NACT. Median age was 48 years and estrogen receptor was positive in 64%. Chemotherapy protocol was an FEC (5-Fluorouracil, Epirubicin, Cyclophosphamide) regimen in the following doses: Cyclophosphamide 600 mg/m2, 5-FU 600 mg/m2, and Epirubicin 75 mg/m2 given every three weeks, six doses, followed by modified radical mastectomy (MRM) and locoregional radiotherapy. The overall response rate (complete response (CR) + partial response (PR)) was 84.4%, clinical CR (cCR) was 13.3% and pathological CR (pCR) was 7.8%. Median DFS and OS were 33 and 101 months, respectively. The disease-free survival (DFS) and overall survival (OS) at five years were 41 and 58%, respectively.

Sharma. BK, Mohanti. DN, Sharma. R, (2010) conducted a prospective study on quality of life in breast cancer patients. Quality of life was measured using the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire and its breast cancer supplementary measure at three points in time: baseline (pre diagnosis), three months after initial treatment and one year after completion of treatment (in all 18 months follow up). The results showed that there were significant differences in patients functioning and global quality of life at three points in time ($P<0.001$).

Diane Scutt, Gillian .A. Lancaster, (2010) conducted a study on breast asymmetry and predisposition to breast cancer. Objective of the study is to compare the breast asymmetry of women who were free of breast disease at time of mammography. The study group consisted of 252 asymptomatic women who had normal mammography, but went on to develop breast cancer. The control group 252 age-matched healthy controls were related whose mammograms were also normal and who reminded free of cancer during the study period. The group who went on to develop breast cancer had higher symmetry than controls (absolute asymmetry odds ratio 1.50 per 100ml, confidence interval (CI) 1.10, 2.04; relative asymmetry 1.09, CI 1.01, 1.18) increased incidence of family history of breast cancer, lower age at menarche, later menopause, later first pregnancies and a higher frequency of high risk breast cancer types.

LITERATURE REVIEW RELATED TO GUIDED IMAGERY

Guided Imagery Overview

Other common name(s) **:** guided imagery, visualization

Scientific/medical name(s) **:** none

Guided Imagery

Guided Imagery is "any of various techniques (as a series of verbal suggestions) used to guide another person or oneself in imagining sensations and especially in visualizing an image in the mind to bring about a desired physical response (as a reduction in stress, anxiety, or pain)."- **(Merriam-Webster's dictionary)**

Guided Imagery is a term that describes the use of images to improve physiological status, mental state, self image, or behavior. The imagery techniques works best when the patient selects the image and decides how it is to be used. **(Phipps, 2003)**

Imagery involves mental exercises designed to allow the mind to influence the health and well-being of the body. The patient imagines sights, sounds, smells, tastes, or other sensations to create a kind of purposeful daydream. It is used with standard medical treatment in people with cancer and other diseases**. (Astin. J. A, 2009)**

Guided imagery is more than listening to relaxing sounds. It's a learning process to listen to someone's voice, relax the breathing and consciously direct the ability to imagine. The effect of guided vivid imagery sends a message to the emotional control center of the brain**. (Herbert, 2008)**

Guided imagery is a technique that involves achieving deep relaxation by imagining yourself in a peaceful place. Reaching that relaxed state can help offset the negative effects of daily stress, and might also help you manage stress-influenced health problems like high blood pressure and insomnia. **(Carol, 2008)**

History

Imagery is believed to have been used as a medical therapy for centuries. There is recorded evidence that Tibetan monks in the 13th and 14th centuries began meditating and imagining that Buddha would cure diseases. Some say the techniques even go back to the ancient Babylonians, Greeks, and Romans. The Simontons popularized imagery therapies in a best-selling 1978 book titled Getting Well Again.

The book described their experiences in treating cancer patients with imagery and other therapies. Currently, imagery is used in clinics at medical centers and local hospitals. It is often combined with other behavioral treatments. **(www.cancer.org)**

Imagery Had Been In Use in Ancient Civilizations

Imagery has been considered a healing tool in virtually all of the world's cultures and is an integral part of many religions. Navajo Indians, for example, practice an elaborate form of imagery that encourages a person to "see" himself as healthy. Ancient Egyptians and Greeks, including Aristotle and Hippocrates believed that images release spirits in the brain that arouse the heart and other parts of the body. They also thought that a strong image of a disease is enough to cause its symptoms. **(www.holistic.online.com)**

Uses

- Guided imagery is a mind-body therapy, any stress-related health concern, including high blood pressure, pain related to muscle tension, insomnia, and anxiety or depression, may be alleviated via this approach.
- Associated conditions, such as skin rashes or irritable bowel syndrome, are also amenable to guided imagery. It has been shown to be beneficial in treating autoimmune disorders such as rheumatoid arthritis and Crohn’s disease, and can be useful to alleviate chronic allergies, hives and asthma.
- Imagery is said to be a relaxation technique, similar to meditation and self-hypnosis, that has physical and psychological effects.

- Promoters claim it can relax the mind and body by decreasing heart rate, lowering blood pressure, and altering brain waves. Some supporters also say that imagery can relieve pain and emotional anxiety, make drugs more effective, and provide emotional insights.
- Practitioners use imagery to treat people with phobias and depression, reduce stress, increase motivation, promote relaxation, increase control over one's life, improve communication, and even to help people stop smoking. Imagery is also used in biofeedback, hypnosis, and neuro-linguistic programming.
- For people with cancer, some supporters of imagery report that it can relieve nausea and vomiting from chemotherapy, relieve stress associated with having cancer, enhance the immune system, help with weight gain, combat depression, and lessen pain. **(Grimma, 2011)**

Benefits

Guided imagery has been shown to benefit patients by:

- Reducing side effects from cancer treatment.
- Reducing fear and anxiety prior to surgery. Studies have shown that surgery patients who participated in two to four guided imagery sessions required less pain medication and left the hospital more quickly than those who hadn't used imagery.
- Managing stress.
- Managing headaches. Studies have shown that guided imagery may aid in reducing the frequency of migraine headaches as effectively as taking preventive medications.**(sander wiats, 2011)**

1) Pain Management

Carol, (2011) conducted a study to evaluate the effectiveness of guided imagery among 44 people with chronic pain, patients who listened to a 7-minute guided imagery tape at least three times daily for four days ended up describing their pain as more tolerable and easier to control by the study's end. The tape's exercises focused on helping the patients to relax and ultimately change the images they associated with their pain.

2) Coping with Cancer Therapy

Cathy, (2010) stated that for women undergoing breast-cancer treatment, practicing guided imagery may strengthen immune defence.

CLASSIFICATION

The *Academy for Guided Imagery (*AGI) classifies the therapeutic application of guided imagery into three categories:

1. Stress reduction and relaxation.
2. Active visualization or directed imagery - for improving performance, changing behavior, or influencing an outcome.
3. Receptive imagery - in which words and images are brought to consciousness to explore and give information about symptoms, treatments, moods or illnesses.

Are there any side effects or indications where guided imagery should be avoided?

There is no known contraindications for using guided imagery. This is not a technique, however, that should be incorporated into patient care when a client is uncomfortable about using it for personal or spiritual reasons. Mind-body approaches

should be used in conjunction with, and not in place of, indicated physical therapies. **(Weil, 2010)**

Important things to consider before trying guided imagery

Guided imagery is considered to be safe. It's best to practice guided imagery when you can devote your full concentration to it. For instance, don't try to practice guided imagery while driving or cooking. **(Weil, 2010)**

How to Practice Guided Imagery

- To practice guided imagery, first find a quiet area and sit in a comfortable position. Keeping your eyes closed and your breathing deep, visualize yourself in an incredibly calming environment.
- Whether you choose an empty beach, a meadow, or even just a backyard hammock, try to engage all of your senses by imagining how your peaceful place must look, feel, sound, smell, and even taste. The more vividly you capture your imagined location, the greater the healing effects of the technique, according to practitioners.
- To enhance the guided-imagery experience, listen to ambient sounds related to your imagined environment (such as if you're visualizing a beach, play a recording of ocean waves). You can also use recordings or scripts to guide you through the exercise. **(Depti Anderson, 2011)**

Are there other therapies that might work well in conjunction with guided imagery?

Mind-body medicine can work well as an adjunct to any conventional or alternative therapy. Imagery techniques are often used in conjunction with massage

and other touch therapies. Guided imagery is frequently employed along with various forms of psychotherapy to facilitate behavioral change. **(Kelly, 2011)**

Are there any possible problems or complications?

Imagery techniques are considered safe, especially under the guidance of a trained health professional. They are best used with conventional medical treatment. Relying on this type of treatment alone and avoiding or delaying conventional medical care for cancer may have serious health consequences. **(Jasnoski, 2010)**

What is the evidence?

Danish researchers found increase natural killer cell activity among ten college students who imagined that their immune system were becoming very effective .Natural killer cells are an important part of the immune system because they can recognize and destroy virus infected cells, tumor cells and other invaders**. (November, 2010)**

LITERATURE RELATED TO GUIDED IMAGERY ON PAIN AND SLEEP QUALITY

Beth DuPree, (2010) conducted a clinical trial study using guided imagery in a preoperative setting. The study looked at women undergoing mastectomies, and the groups were divided into those patients receiving standard preoperative nursing instructions, and those patients receiving guided imagery tapes or CDs to use the week before surgery, the day before surgery, and immediately before surgery. The study showed a decrease in the number of days admitted to the hospital, an average of $2,000 less in charges per patient, and an overall sense of well-being that was

expressed by the patients participating in the guided imagery. The usage of pain medicine was also decreased in the guided imagery group.

Cathy Wong, Cassieth, (2010) conducted a pilot study to evaluate the effectiveness of Guided imagery as a complementary treatment of 62 hospitalized breast cancer patients for relief of pain. Study results suggested that patients with greater visualization abilities may be more likely to experience pain reduction when using guided imagery.

David Spigel, Sachler, (2009) conducted a comparative study to evaluate the effect of guided imagery versus progressive muscle relaxation on pain reduction and sleep quality among hospitalized breast cancer patients. The study included 52 hospitalized breast cancer patients who were given 20 minutes of guided imagery and 50 patients were given progressive muscle relaxation for 20 minutes for 10 days. The findings suggested that guided imagery was effective in reducing pain.

Kelly King, (2009) conducted a study to evaluate the effectiveness of guided imagery for relief of cancer pain and sleep disturbance among stage II breast cancer patients. The study included 200 patients in which there 100 of them received Guided imagery and 100 in the control group. Results showed that after 30 minutes of Guided imagery for 4 days there was a decrease in pain intensity and pain related distress and improve in sleep quality in the experimental group compared to control group.

KristenAbbot, Robert Kramer, (2009) conducted a study to evaluate the feasibility of a patient-controlled cognitive-behavioral intervention for pain, fatigue, and sleep disturbance during treatment for advanced cancer, and to assess initial

efficacy of the intervention in controlling symptoms .One-group pretest-posttest design was used. The study conducted at Outpatient oncology clinics at a Comprehensive Cancer Center in the Midwestern United States. The study included 30 adults with advanced (recurrent or metastatic) breast, colorectal, lung, and prostate cancer receiving chemotherapy or radiotherapy. Participants completed baseline measures (demographics, symptom inventory) and received education and training to use an MP3 player loaded with 12 cognitive-behavioral strategies (e.g., relaxation exercises, guided imagery, nature sound recordings). Participants used the strategies as needed for symptom management over the following 2-weeks, keeping a log of symptom ratings with each use. Following the two-week intervention, participants completed a second symptom inventory and an evaluation of the intervention. The results showed that there is s significant reductions in pain, fatigue, and sleep disturbance severity were found in ratings made immediately before and after use of a cognitive-behavioral strategy.

Belinda Garner, (2008) conducted a pilot study to evaluate the effectiveness of guided imagery among 28 patients with breast cancer undergoing surgery at Midwestern university hospital.30 minutes of guided imagery for 3 days administered in pre operatively. study results suggested that patients with guided imagery experienced increased activity in natural killer cells.

Jane hart, Rhonda Moore, (2008) conducted a study to evaluate the effectiveness of guided imagery tape with analgesic imagery on cancer-related Pain in 69 hospitalized patients with breast cancer. They were used a 12-minute guided-imagery tape with analgesic imagery that offered suggestions to increase patient comfort and provided pleasant nature imagery, including walking along a river among

wildflowers. The average pain-intensity score was lower than baseline for 90% of the participants and remained unchanged or increased for 10% of these patients. History of prior imaging use and imaging ability were significant predictors of outcome expectancy and pain outcomes such as pain intensity and control over pain.

Smith, Vickers .AJ, (2005) conducted a study to evaluate the effectiveness of guided imagery among breast cancer patients. A true experimental design was used. 30 breast cancer patients were taught to use guided imagery during their 6 months of chemotherapy. Another 30 patients were treated with chemotherapy alone. The group practicing guided imagery experienced less pain, and they were less anxious, depressed, and irritable than the group receiving chemotherapy alone. Six months after treatment ended, the guided imagery group was still experiencing a better quality of life than the group that didn't receive training.

Kwekkeboom .KL, Kner Pearson .L, (2003) conducted a pilot study to predict success with guided imagery for cancer pain.A one-group pretest-posttest design was used. A sample of 62 hospitalized breast cancer patients currently experiencing pain rated >/=3 on a 0 to 10 scale completed questionnaires and used an audiotaped imagery intervention. Pain outcomes examined included mean pain intensity and distress, positive and negative affect, and perceived control over pain. Imaging ability predicted mean pain intensity, positive affect, and perceived control over pain. Variance explained in pain outcomes ranged from 10% to 52% (adjusted R(2) = 3% to 48%). Findings suggested that after considering current symptom experience, imaging ability may be a useful variable to assess in order to determine whether guided imagery is an appropriate intervention for individual patients.

Covey, Halper, (2002) conducted a study to evaluate the effectiveness of hypnotic-guided imagery session on immune system and emotional status in 25 women with Stage I and II breast cancer. were led through individual hypnotic-guided imagery sessions. During the sessions, the women were encouraged to imagine certain kinds of protective immune system cells — called natural killer cells — finding, destroying, and removing cancer cells. The initial session was taped. The women used the tapes to practice at home 3 times a week for 8 weeks. Researchers measured the women's immune function and emotional state 3 times: before the program began, after the 8-week program, and 3 months after the program ended. After combining these results, researchers found that the women had much less depression and higher natural killer cell counts. While the women had more natural killer cells, the activity of those cells was not very different than it had been originally.

DeaneA, FreemanL, Cohen.L, (1999) conducted a study to evaluate the effectiveness of relaxation training and guided imagery among patients with breast cancer patients. women with newly diagnosed large or locally advanced breast cancer were split into 2 groups(30 patients in the experimental group and control group). Both groups received traditional cancer care including 6 cycles of chemotherapy, but one group also received relaxation training and guided imagery. The women in the guided imagery group experienced better quality of life and easier expression of emotions than the group receiving only the traditional care.

Walker .LG, Walker. MB, (1999) conducted a study to evaluate the effectiveness of guided imagery among 96 breast cancer patients regarding quality of life. The findings of the study revealed that guided imagery was very effective in maintaining better quality of life.

Esplen.D, George.H, (1998) conducted a randomized, controlled, partially blinded trial to evaluate the differential effectiveness of two brief psychologic interventions (guided imagery and progressive muscle relaxation) on analgesic requirement, pain perception, pulmonary function, duration of postoperative ileus, and fatigue after conventional resection of colorectal carcinoma in elderly cancer patients.Sixty patients (20 guided imagery, 22 relaxation, 18 control) were evaluated. Acceptance of the brief psychologic interventions was high and 90 percent of the patients indicated that they would recommend it to other patients. Analgesic consumption (P = 0.6) and subjective pain intensity at rest (P = 0.3) and while coughing (P = 0.3) were not different between groups. Recovery of pulmonary function, duration of postoperative ileus, and subjective postoperative fatigue were also not influenced. When the data from intervention groups were pooled, again no benefits were detected compared with the control group.

CHAPTER-III

METHODOLOGY

Methodology is a significant part of any study, enables the researcher to project the research undertaken. Research methodology is the systematic way to carry out an academic study and research in flawless manner. The methodology enables the researcher to project a blue print of the details, data, approach, analysis, findings of research undertaken. The present study was conducted to find out the effectiveness of guided imagery in terms of pain and sleep quality among the patients with breast cancer.

Research Approach

Quantitative evaluative approach was considered as an appropriate research approach to evaluate the effectiveness of guided imagery among the patients with breast cancer.

Research Design

Pre experimental One group Pre test and Post test design was used for this study.

O1 X O2

O1 - Pre test on pain intensity and sleep quality

X - Guided Imagery

O2 – Post test on pain intensity sleep quality

Variables

Independent variable : Guided Imagery

Dependent variable : Pain, Sleep quality

Description of Setting

The study was conducted in Dr.G.V.N Cancer cure centre in Trichy. It is a 200 bedded hospital that is a branch of the Dr.G.V.N Institute of medical sciences and society, Trichy which has 4 branches comprising 450 beds and serving the community since 1939. It is about 175kms from Sra Nursing College. In this hospital per day 10 patients were admitted with breast cancer among them 4 patients were in fourth stage of breast cancer.

Population

The population of this study was patients who were diagnosed to have breast cancer with fourth stage.

Sampling

Sample

The sample of this study was patients who were diagnosed to have breast cancer with fourth stage and who were admitted at Dr.G.V.N Cancer cure centre Trichy during the study period and those who met the inclusion criteria.

Sample Size

The investigator had selected 35 patients aged between 30 to 60 years who were diagnosed to have breast cancer with fourth stage.

Sampling Technique

Convenience sampling technique was used for this study.

Criteria For Sample Selection

Inclusion Criteria

- Patients who are diagnosed to have breast cancer with fourth stage.
- Patients in the age group between 30 to 60 years.
- Female patients with breast cancer.
- Patients with breast cancer irrespective of modality of treatment.
- Patients who are taking similar type and dosage of medications for pain and sleep.
- Patients who can speak and understand Tamil.

Exclusion Criteria

- Patients who are unconscious and terminally ill.
- Patients with cancer who are not willing to participate in the study.
- Patients who are having mental illness.
- Patients with sensory deficit.

Description of tool

Section-A: Demographic variables

A Structured interview schedule was used to assess the demographic data like age, religion, educational status, occupational status, family monthly income, marital status, family size, locality, food habits, duration of illness, duration of treatment and modalities of treatment. No score was allotted for this section and it was used for descriptive analysis.

Section-B: Numerical pain rating scale

The scale consisted of pain score ranging from 0-10 (No pain to Worst pain) was used to assess the pain intensity. The patients level of pain was divided into five categories as follows;

Description	Score
No Pain	0
Mild Pain	1-3
Moderate Pain	4-6
Severe Pain	7-9
Worst	10

Section- C: Groningen sleep quality scale

It helps to assess the sleep quality of the patients, which has 15 items to measure the quality of sleep. The scale was translated in Tamil. The accuracy of the translation was confined by back translation. The first question does not count for the total score. one point is awarded, If the answer is true to questions 2,3,4,5,6,7,9,11,13,14,15.one point is awarded if answer is false to question 8,10,12. The total possible score was 15. The total score of each subject was calculated and interpreted as follows;

Good sleep	1 – 2
Average sleep	3 – 5
Disturbed sleep	6 – 15

Validity

Content validity of the tool was obtained on the basis of opinion of Medical surgical experts (4 Medical Surgical Nursing specialist, 1 Medical Oncologist). The tool was found valid. Suggestions were incorporated

Reliability

To ensure the reliability of the tool, it has been administered to 6 patients with breast cancer. The reliability of the Numerical pain rating scale was established by Inter-rater reliability method. The tool was found to be reliable (r=0.92). The reliability of the Groningen sleep quality scale was established by Karl Pearson's co-relation co-efficient, by test-retest method and reliability was r=0.85. Hence the tool was reliable and it was used for this study.

Pilot Study

In order to find out feasibility and practicability, a pilot study was conducted at Thanjavur cancer centre in Thanjavur for a period of 1 week (16.06.2011 to 23.06.2011) among 6 patients with breast cancer. The study was found feasible to conduct.

Method of data collection

Ethical consideration

Formal permission was obtained from the chairman of Dr.G.V.N Cancer cure centre and Informed consent was obtained.

Period of data collection

Data collection was done over a period of 4 weeks from 29.06.2011 to 28.07.2011.

Data Collection Procedure

The data collection was done at Dr.G.V.N Cancer cure centre Trichy. Permission was obtained before data collection. The objective of the study was explained to the director and other professionals to get the cooperation during the

procedure. Oral consent was obtained. Thirty five patients with fourth stage of breast cancer was selected on the basis of convenience sampling technique. Before administering the guided imagery to the subjects, demographic data, pain status and sleep quality was assessed as a pretest. Then the guided imagery was administered to the subjects with audio visual stimulations from the 2nd day. The Investigator administered guided imagery to the subjects for 20 minutes 2 times a day for 3 consecutive days. Then the post test pain was assessed every day evening after intervention. The sleep quality was assessed in the next day morning average score of 3 post test was taken for analysis. 1- 2 subjects was interviewed per day and it took 30 minutes for each subjects.

Plan for data analysis

Descriptive statistics was used for categorical data, Paired 't' test was used to determine the effectiveness of guided imagery, Karl Pearson correlation coefficient was used to find the relationship between post test level of pain level of pain and post test level of sleep quality and Chi-square test was used to associate the post test level of pain and sleep quality of patients with breast cancer with their selected demographic variables.

CHAPTER IV

ANALYSIS AND INTERPRETATION

Research data must be processed and analyzed in an orderly fashion so that patterns and relationship can be discerned and validated, and hypothesis can be tested. Quantitative data analyzed through statistical analysis includes simple procedures as well as complex and sophisticated methods**. (Polit, 2004)**

In this chapter, the data collected were systemically processed, tabulated and made suitable for analysis and interpretations. It was a study to evaluate the effectiveness of guided imagery on pain and sleep quality among breast cancer patients in selected hospital at Trichy. A sample of 35 respondents was selected. The results obtained were classified, tabulated and the following analyses were performed in fulfilling the objectives of the study.

The data analysis is presented as following sections;

Section A - Distribution of subjects according to their demographic variables.

Section B - **i)** Assessment of level of pain before and after guided imagery among the patients with breast cancer.

ii) Assessment of level of sleep quality before and after guided imagery among the patients with breast cancer.

Section C - Effectiveness of guided imagery on level of pain and sleep quality among the patients with breast cancer.

Section D - Relationship between the post test level of pain and sleep quality

Section E - Association between the post test level of pain and selected demographic variables.

Section F - Association between the post test level of sleep quality and selected demographic variables.

Section A

Table 4.1 : Distribution of subjects according to their demographic variables

n = 35

S.NO	DEMOGRAPHIC VARIABLES	f	%
1	AGE		
	30-40 years	3	8.6
	41-50 years	13	37.1
	51-60 years	17	48.6
	Above 61 years	2	5.7
2	RELIGION		
	Hindu	12	34.3
	Christian	4	11.4
	Muslim	19	54.3
3	EDUCATION		
	No formal education	-	-
	Primary school	14	40
	High school	10	28.6
	Higher secondary	7	20
	Collegiate	4	11.41
4	OCCUPATION		
	Home maker	15	42.9
	Daily wage laborer	11	31.4
	Business	-	-
	Government employee	4	11.4
	Private employee	5	14.3
5	FAMILY MONTHLY INCOME		
	Below Rs.3000	10	28.6
	Rs.3001-5000	15	42.8
	Rs.5001-10000	4	11.4
	Above Rs.10000	6	17.2

6	MARITAL STATUS		
	Married	33	94.3
	Unmarried	2	5.7
	Divorced	-	-
	Widow	-	-
7	FAMILY SIZE		
	Nuclear family	29	82.8
	Joint family	6	17.2
	Extended family	-	-
8	LOCALITY		
	Urban	12	34.3
	Rural	23	65.7
9	FOOD HABITS		
	Vegetarian	8	22.8
	Non vegetarian	27	77.2
10	DURATION OF ILLNESS		
	Less than 1 year	17	48.57
	1-3 years	18	51.43
	Above 3 years	-	-
11	DURATION OF TREATMENT		
	Less than 1 year	19	54.28
	1-3 years	16	45.72
	Above 3 years	-	-
12	MODALITIES OF TREATMENT		
	Radiation therapy	12	34.29
	Chemotherapy	-	-
	Surgery	-	-
	Combined	23	65.71

Table 4.1shows that according to their demographic variables majority of the subjects 17(48.6%) were in the age group of 51-60 years, religion 19 (54.3%) were Muslim, education status 14(40%) had studied primary level education, occupation status 15(42.9 %) were Home maker, family monthly income 15(42.8%) of the patient's of Rs.3001-5000, marital status 33 (94.3%) were married, family size 29(82.8%) were belongs to Nuclear family, locality 23(65.7%) were lived in rural area, food habits 27(77.2%) were had the habit of Non vegetarian, duration of illness 18(51.43%) were in the duration of 1-3 years, duration of treatment, 19(54.28%) were belongs to duration of less than 1 year and modalities of treatment 23(65.71%) were combined treatment.

Section B

i) Assessment of level of pain before and after guided imagery

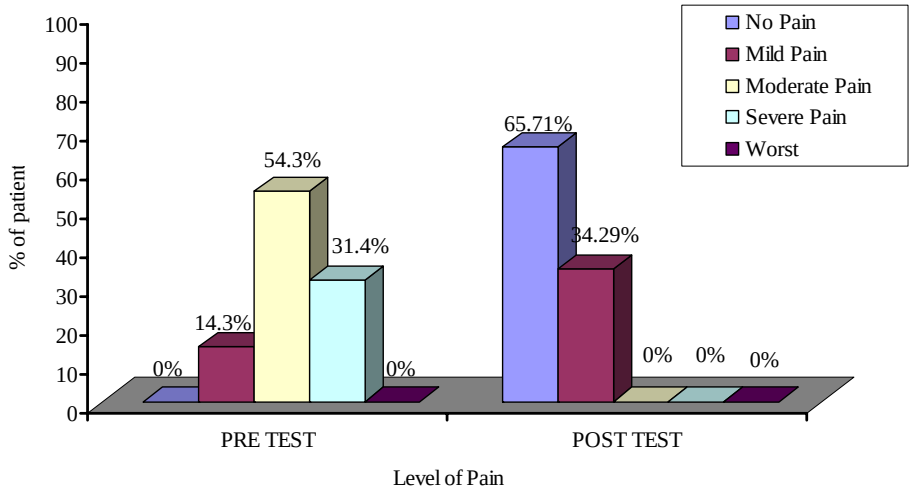

Fig 4.1 : Distribution of subjects' level of pain before and after guided imagery

Figure 4.1 shows that among the 35 subject's, majority of the subjects 19(54.3%) had moderate pain, 11(31.4%) of the subjects had severe pain and 5(14.3%) of the subjects had mild pain before guided imagery. Whereas majority of the subjects 23(65.71%) had no pain and 12(34.29%) subjects had mild pain after guided imagery.

ii) Assessment of level of sleep quality before and after guided imagery

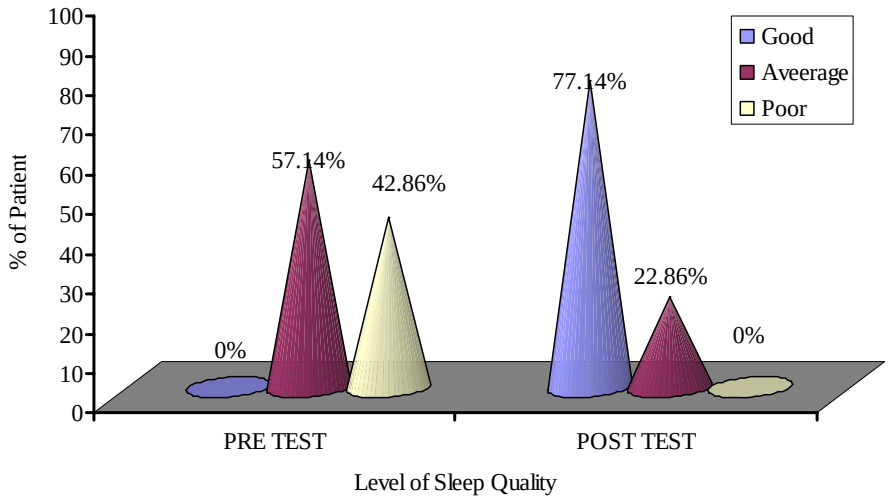

Figure 4.2: Distribution of subjects' level of sleep quality before and after guided imagery.

Figure 4.2 shows that among 35subjects, majority of the subjects 20(57.14%) had average sleep quality and 15(42.86%) subjects had disturbed sleep quality before guided imagery. Whereas majority of the subjects 27(77.14%) had good sleep quality and 8(22.86%) subjects had average sleep quality after the guided imagery.

Section C

Table 4.2: Effectiveness of guided imagery on level of pain and sleep quality among the patients with breast cancer

n = 35

S. No	Variables	Maximum scores	Pre test		Post test		't' value
			Mean	SD	Mean	SD	
1	Pain	10	5.51	2.09	0.48	0.24	18.23*
2	Sleep quality	15	6.66	3.79	1.96	1.61	8.52*

*(P < 0.01)

Table 4.2 shows that there was a significant difference found (P< 0.01) between the level of pain and sleep quality. The mean pre test and post test score of level of pain was 5.51 (±2.09), 0.48 (±0.24) and sleep quality was 6.66 (±3.79), 1.96 (±1.61) respectively.

The 't' value shows that guided imagery was effective in reduction of pain and improvement in sleep quality among patients with breast cancer with the significant results are (18.23,8.52) which is greater than the table value (2.457) at P < 0.01 level of significance. Hence H1 hypothesis was retained

Section D

Table 4.3 : Relationship between post test level of pain and sleep quality among the patients with breast cancer

n= 35

	Pain		**Sleep quality**		**'r' value**
	Mean	**SD**	**Mean**	**SD**	
sample 35	0.48	0.24	1.96	1.61	0.7

Table 4.3 shows that there was a positive correlation was observed between the post test level of pain and sleep quality of patients with breast cancer.

Section E

Table 4.4 : Association between post test level of pain and selected demographic variables

n= 35

S. No	Demographic Variables	Level Of Pain				χ^2 Value
		No pain		Mild pain		
		f	%	f	%	
1	AGE					
	30- 40 years	2	5.7	1	12.9	
	41-50 years	8	22.9	5	14.3	1.1704
	51-60 years	11	31.4	6	17.1	
	Above 61 years	2	5.7	-	-	
2	RELIGION					
	Hindu	8	22.9	4	11.4	
	Christian	2	5.7	2	5.7	0.494
	Muslim	13	37.1	6	17.1	
3	EDUCATION					
	No formal	-	-	-	-	
	Primary school	8	22.9	6	17.1	
	High school	7	20	3	8.6	0.832
	Higher secondary	5	14.3	2	5.7	
	Collegiate	3	8.6	1	2.9	
4	OCCUPATION					
	Home maker	10	28.6	5	14.3	
	Dailywage laborer	7	20	4	11.4	
	Business	-	-	-	-	0.673
	Government	3	8.6	1	2.9	
	Private employee	3	8.6	2	5.7	
5	FAMILY INCOME					
	Below Rs.3000	6	17.1	4	11.4	
	Rs.3001-5000	10	28.6	5	14.3	0.3039
	Rs.5001-10000	3	8.6	1	2.9	
	Above Rs.10001	4	11.4	2	5.7	

6	MARITALSTATUS					
	Married	21	60	12	34.3	
	Unmarried	2	5.7	-	-	1.126
	Divorced	-	-	-	-	
	Widow	-	-	-	-	
7	FAMILY SIZE					
	Nuclear family	21	60	8	22.9	
	Joint family	2	5.7	4	11.4	3.354
	Extended family	-	-	-	-	
8	LOCALITY					
	Urban	8	22.9	4	11.4	0.015
	Rural	15	42.9	8	22.9	
9	FOOD HABITS					
	Vegetarian	2	5.7	6	17.1	7.64*
	Non vegetarian	21	60	6	17.1	
10	DURATION OF ILLNESS					
	Less than 1 year	10	28.6	7	20	
	1-3 years	13	37.1	5	14.3	0.69
	Above 3 years	-	-	-	-	
11	DURATION OF TREATMENT					
	Less than 1 year	12	34.3	7	20	
	1-3 years	11	31.4	5	14.3	0.123
	Above 3 years	-	-	-	-	
12	MODALITIES OF TREATMENT					
	Radiation therapy	8	22.9	4	11.4	
	Chemotherapy	-	-	-	-	0.0078
	Surgery	-	-	-	-	
	Combined	15	42.9	8	22.9	

*(P<0.05)

Table 4.4 shows that there was a significant association between the post test level of pain and selected demographic variables like food habits.

Section F

Table 4.5: Association between post test level of sleep quality and demographic variables

n = 35

S.No	Demographic variables	Level of sleep quality				χ^2 Value
		Good		Average		
		f	%	f	%	
1	AGE					
	30-40 years	2	5.7	1	2.9	
	41-50 years	11	31.4	2	5.7	3.0398
	51-60 years	12	34.3	5	14.3	
	Above 61 years	2	5.7	-	-	
2	RELIGION					
	Hindu	10	28.6	2	5.7	
	Christian	2	5.7	2	5.7	1.996
	Muslim	15	42.9	4	11.4	
3	EDUCATION					
	No formal	-	-	-	-	
	Primary school	9	25.7	5	14.3	
	High school	9	25.7	1	2.9	2.932
	Higher secondary	6	17.1	1	2.9	
	collegiate	3	8.6	1	2.9	
4	OCCUPATION					
	Home maker	11	31.4	4	11.4	
	Daily wage laborer	9	25.7	2	5.7	
	Business	-	-	-	-	0.2922
	Government	3	8.6	1	2.9	
	Private employee	4	11.4	1	2.9	
5	FAMILY INCOME					
	Below Rs.3000	8	22.9	2	5.7	
	Rs.3001-5000	11	31.4	4	11.4	1.713
	Rs.5001-10000	4	11.4	-	-	
	Above Rs.10001	4	11.4	2	5.7	

6	MARITALSTATUS					
	Married	25	71.4	8	22.9	
	Unmarried	2	5.7	-	-	
	Divorced	-	-	-	-	0.16
	Widow	-	-	-	-	
7	FAMILY SIZE					
	Nuclear family	23	65.7	6	17.1	
	Joint family	4	11.4	2	5.7	0.435
	Extended family	-	-	-	-	
8	LOCALITY					
	Urban	9	25.7	3	8.6	0.05
	Rural	18	51.4	5	14.3	
9	FOOD HABITS					
	Vegetarian	5	14.3	3	8.6	1.26
	Non vegetarian	22	62.9	5	14.3	
10	DURATION OF ILLNESS					
	Less than 1 year	12	34.3	5	14.3	
	1-3 years	15	42.9	3	8.6	0.29
	Above 3 years	-	-	-	-	
11	DURATION OF TREATMENT					
	Less than 1 year	14	40	5	14.3	0.29
	1-3 years	13	37.1	3	8.6	
	Above 3 years	-	-	-	-	
12	MODALITIES OF TREATMENT					
	Radiation therapy	8	22.9	4	11.4	
	Chemotherapy	-	-	-	-	1.34
	Surgery	-	-	-	-	
	Combined	19	54.3	4	11.4	

Table 4.5 shows that there was no significant association between the post test level of sleep quality and selected demographic variables.

CHAPTER-V

DISCUSSION

This chapter presents the interpretation of the statistical findings. It has been discussed based on the objectives of the study. The aim of the study was to evaluate the effectiveness of guided imagery in terms of pain and sleep quality among the patients with breast cancer at selected Hospital in Trichy District.

A sample of 35 patients with breast cancer who met the inclusion criteria were selected for the study by using convenience sampling technique. The tool used for data collection consisted was a Numerical pain rating scale for assessing the level of pain and Groningen sleep quality scale for assessing the level of sleep quality.

The first objective of the study was to assess the level of pain before and after guided imagery among the patients with breast cancer.

The findings shows that among the 35 subject's, majority of the subjects 19(54.3%) had moderate pain, 11(31.4%) of the subjects had severe pain and 5(14.3%) of the subjects had mild pain before guided imagery. Whereas majority of the subjects 23(65.71%) had no pain and 12(34.29%) subjects had mild pain after guided imagery.

The second objective of the study was to assess the level of sleep quality before and after guided imagery among the patients with breast cancer.

The findings shows that among 35subjects, majority of the subjects 20(57.14%) had average sleep quality and 15(42.86%) subjects had disturbed sleep quality before guided imagery. Whereas majority of the subjects 27(77.14%) had good sleep quality and 8(22.86%) subjects had average sleep quality after the guided imagery.

The third objective of the study was to evaluate the effectiveness of guided imagery in terms of level of pain and sleep quality among the patients with breast cancer.

There was a significant difference found (P< 0.01) between the level of pain and sleep quality. The mean pre test and post test score of level of pain was 5.51 (±2.09), 0.48 (±0.24) and sleep quality was 6.66 (±3.79), 1.96 (±1.61) respectively.

The study findings were congruent with the study done by ***Donaldson G W, (2010)*** *to evaluate the effects of guided imagery on pain and sleep quality among breast cancer patients. The study results showed that there was a effectiveness of guided imagery in reducing pain and improvement in sleep quality among breast cancer patients.*

H-1 There will be a significant difference in the level of pain and level of sleep quality before and after guided imagery among the patients with breast cancer at $P < 0.05$ level of significance.

Therefore hypothesis H_1 was Retained.

The fourth objective of the study was to co-relate post test level of pain score with post test level of sleep quality score among the patients with breast cancer.

There was a positive correlation was observed between the post test level of pain and sleep quality of patients with breast cancer. **(r = 0.7)**

The findings of the study were congruent with the study done by ***Cherkin D.C, (2009),*** *conducted a study to determine the relationship between pain and sleep quality and the findings showed that there is high positive co-relation between pain and sleep quality.*

H-2 There will be a significant relationship between the level of pain and sleep quality among the patients with breast cancer.

Therefore hypothesis H_2 was Retained.

The fifth objective of the study was to associate post-test level of pain with selected demographic variables.

In table 4.4 Chi-square analyses was calculated to find the association between post test level of pain of the subjects and selected demographic variables (age, religion, educational status, occupational status, family monthly income, marital status, family size, locality, food habits, duration of illness, duration of treatment, modalities of treatment).

There was a significant association ($P<0.05$) in the post test level of pain with selected demographic variables like food habits.

H -3 There will be a significant association between the post test level of pain and selected demographic variables among the patients with breast cancer at $P < 0.05$ level of significance.

Therefore hypothesis $H_3$was Retained.

The sixth objective of the study was to associate post-test level of sleep quality with selected demographic variables.

In table 4.5 Chi-square analysis was calculated to find the association between post test level of sleep quality of the subjects and selected demographic variables.

There was no significant association in the post test level of sleep quality with selected demographic variables such as age, religion, educational status, occupational status, family monthly income, marital status, family size, locality, food habits, duration of illness, duration of treatment and modalities of treatment.

Therefore hypothesis H_4 was Rejected.

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS

This chapter deals with summary of the study findings and its implications for nursing and health care services. It clarifies the, the implications and recommendations given for different areas like nursing education, nursing practice and nursing administration for health care delivery system.

The purpose of the study was to evaluate the effectiveness of guided imagery in terms of pain and sleep quality among the patients with breast cancer at selected Hospital in Trichy District.

A Pre experimental one group pre test and post test design was used in this study. The conceptual framework used in this study was Imogene King's Goal Attainment Theory (1971). Demographic profile was assessed using a structured interview schedule. The sample consisted of 35 patients with breast cancer.

The data were analysed using descriptive and inferential statistics. Paired 't' test, Karl Pearson correlation co efficient and chi-square was used to test the hypothesis.

Major Findings Of The Study

- According to their demographic variables majority of the subjects 17 (48.6%) were in the age group of 51-60 years, Religion 19 (54.3%) were Muslim, education status 14 (40%) had studied primary level education, occupation

status 15 (42.9 %) were Home maker, family monthly income 15(42.8%) of the patient's of Rs.3001-5000, marital status 33 (94.3%) were married, family size 29 (82.8%) were belongs to Nuclear family, Locality 23 (65.7%) were lived in Rural area Food habits 27 (77.2%) were had the habit of Non vegetarian, duration of illness 18(51.43%) were in the duration of 1-3 years, duration of treatment, 19 (54.28%) were belongs to duration of less than 1 year and Modalities of treatment 23 (65.71%) were combined treatment.

- Level of pain shows that majority of the subjects 11(31.4%) had severe pain, 19(54.3%) of the subjects had moderate pain and 5(14.3%) of the subjects had mild pain before guided imagery.
- Level of pain shows that majority of the subjects 23 (65.71%) had no pain and 12 (34.29%) subjects had mild pain after guided imagery.
- Level of sleep quality shows that among 35 subjects, majority of the subjects 20 (57.14)% had average sleep and 15 (42.86%) subjects had disturbed sleep before guided imagery.
- Level of sleep quality shows that majority of the subjects 27 (77.14%) had good sleep and 8 (22.86%) subjects had average sleep after the guided imagery.
- There was a significant difference found ($P< 0.01$) between the level of pain and sleep quality. The mean pre test and post test score of level of pain was 5.51 (±2.09), 0.48 (±0.24) and sleep quality was 6.66 (±3.79), 1.96 (±1.61) respectively.
- There was a positive correlation between the post test level of pain and sleep quality of patients with breast cancer ($r = 0.7$).

- There was a significant association in the post test level of pain with selected demographic variables like food habits.
- There was no significant association between the post test level of sleep quality and selected demographic variables.

Conclusion

Based on the findings of the study following conclusions were drawn.

1. Patients with breast cancer have high level of pain and low level of sleep quality. Hence they need intervention.
2. Guided imagery significantly decreases pain and improve sleep quality among patients with breast cancer.
3. The study reveals that there is a significant relationship between pain and sleep quality, when pain increases sleep quality decreases. This indicates positive correlation between pain and sleep quality.
4. The study reveals that there is a significant association with post test level of pain with selected demographic variables like food habits.
5. The study reveals that there is no significant association with post test level of sleep quality with selected demographic variables.

NURSING IMPLICATIONS

The findings of the study have several implications in the following fields.

Nursing Practice

- Nurses play an important role in promoting health and well being of the patients with breast cancer.

- Nurses can help the clients to adjust to changes in body function, and reassure them to live with chronic illness by providing guided imagery to relax physically and psychologically.
- Nurses can intervene guided imagery to alter the physical discomfort and psychological disequilibrium.
- Nurses can teach the family members about guided imagery in order to reduce pain and improve sleep quality in the home.

Nursing Education

- Nurse educators can effectively teach the uses and significance of guided imagery and it helps nursing students to gain knowledge regarding guided imagery. It helps nursing students to perform guided imagery to hospitalized cancer patient in order to reduce pain and improve sleep quality.
- The nursing students can understand the guided imagery as one of the useful complementary and alternative therapy.
- Nursing curriculum should include the practical and theory teaching on complementary and alternative medicine- (Guided imagery).

Nursing Administration

- The nurse administrator should arrange for education programme to patients regarding the importance of guided imagery to reduce pain and improve sleep quality.
- Nurse administrator can prepare skilled nurses who can spend time with people in solving physiological and psychological disequilibrium in clients.

- Regular Continuing Nursing Education programme should be arranged for nurses regarding using complementary and alternative therapy in palliative care, hospice and pain clinics.

RECOMMENDATIONS

Recommendations for further research include :

- A similar study can be replicated with larger sample size and in various other settings.
- A similar study can be done to identify physiological (pain, blood pressure,) and psychological (stress and anxiety) relaxation of patients undergoing major surgery.
- A similar study can be conducted to compare the effects of guided imagery and any other non pharmacological intervention.
- A similar study can be conducted among patients with chronic illness.
- A similar study can be done for a longer duration to assess the effectiveness of guided imagery.

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ANNEXURE – A

SARA NURSING COLLEGE

(Recognised by Govt. of Tamil Nadu, Affiliated to
T.N. Dr. M.G.R. Medical University & Approved by Indian Nursing Council)

Palani Main Road, Manakadavu,
Dharapuram - 638 673, Tirupur District,
Tamil Nadu, South India.

Phone : 04258-244208, Fax : 04258-244254
E-mail : saranursingcollege@gmail.com
website : www.saranursingcollege.com

Date : 02.06.2011
Lr No: SNC 84/6/11

From,

The Principal,
Sara Nursing College,
Palani Main Raod,
Manakadavu, Dharapuram
Tirupur District.

To,

The Director,
Dr. G. Viswanathan Hospital,
Trichy.

Respected Sir,

Miss. P. Puela Catherin is a bonafide student of Sara Nursing College, Dharapuram, doing her M.Sc., Programme in Nursing. She is conducting a research study on,

" A Study to evaluate the effectiveness of guided imagery in terms of pain and sleep quality among patients with breast cancer". The research project is to be submitted to "The Tamilnadu Dr. M.G.R Medical University", as a partial fulfillment of the University requirements for the award of M.Sc., Nursing Degree. The researcher is anticipating that this project will be beneficial in improving the nursing care among patients with breast cancer at your esteemed Institution.

As a part of her study she needs to evaluate the selected subjects for the effectiveness of guided imagery among patients with breast cancer and document the collected data for analysis and report.

Hence I request your kind consent for her to conduct the study at your esteemed Institution. Further details of the proposed project outcome will be furnished by the researcher in person. The hospital norms, policies and ethics will be respected and strictly adhered by the researcher throughout the study period.

Thanking you,

SARA NURSING COLLEGE * MANAKADAVU * DHARAPURAM * Tirupur Dist 638 673

Dr. V J
Dr. R K
Dr. K L

Principal 02/06/11
for

PRINCIPAL
Sara Nursing College,
Dharapuram - 638 673.

G.Viswanatham Hospital
G. விசுவநாதம் மருத்துவமனை

Dr.G. VISWANATHAN,
M.B.B.S.,
Surgeon

To

The principal,
Sara Nursing College,
Dharapuram.

Respected Madam,

This is to certify that Ms. PUELA CATHERIN.P, IInd year M.Sc (N) has conducted a research study on "A study to evaluate the effectiveness of guided imagery interms of pain and sleep quality among patients with breast cancer" and she collected data from 29.06.11 to 28.07.11 in our institution.

Thanking you,

G.V.N. HOSPITAL TRICHY-620008 26.07.11

Chairman
DR. V. JAYAPAL,
M.S.,F.I.C.S.,F.I.M.S.A.
SURGEON (REG. No.14740)
G.V.N. HOSPITAL
46, Singarathope, Tiruchi - 620 008.

ANNEXURE – B

SECTION - A

Demographic Variables

Hospital No : Date :

Serial No :

1. AGE
    a. 30-40 years
    b. 41-50 years
    c. 51-60 years
    d. above 61 years

2. RELIGION
    a. Hindu
    b. Christian
    c. Muslim

3. EDUCATION
    a. No formal education
    b. Primary School
    c. High School
    d. Higher Secondary
    e. Collegiate

4. OCCUPATION
    a. Home maker
    b. Daily wage worker
    c. Business
    d. Government employee
    e. Private employee

5. FAMILY MONTHLY INCOME
    a. Below Rs.3000
    b. Rs.3001-5000
    c. Rs.5001-10000
    d. Above 10001

6. MARITAL STATUS
    a. Married
    b. Unmarried
    c. Divorced
    d. Widow

7. TYPE OF FAMILY
    a. Nuclear family
    b. Joint family
    c. Extended family

8. LOCALITY
    a. Urban
    b. Rural

9. FOOD HABITS
    a. Vegetarian
    b. Non Vegetarian

10. DURATION OF ILLNESS
    a. Less than 1 year
    b. 1-3 years
    c. Above 3 years

11. DURATION OF TREATMENT

a. Less than 1 year
b. 1-3 years
c. Above 3 years

12. MODALITIES OF TREATMENT

a. Radiation therapy
b. Chemotherapy
c. Surgery
d. Combined

SECTION - B

NUMERICAL PAIN RATING SCALE

No pain 0--------1------2------3-------4------5------6-------7------8------9------10 worst pain

Indicate on the line where the pain is in relation to the two extremes.

Present pain intensity (categorical scale)

DESCRIPTION	SCORE
No pain	0
Mild pain	1-3
Moderate Pain	4-6
Severe pain	7-9
Worst	10

SECTION - C

GRONINGEN SLEEP QUALITY SCALE

SUBJECT NUMBER: ---------- DATE ----------

TIME ----------

ITEM	DESCRIPTOR	TRUE	FALSE
1	I had a deep sleep last night		
2	I feel that I slept poorly last night		
3	It took me more than half an hour to fall asleep last night		
4	I woke up several times last night		
5	I felt tired after waking up this morning		
6	I feel that I didn't get enough sleep last night		
7	I got up in the middle of the night		
8	I felt rested after waking up this morning		
9	I feel that I only had a couple of hour's sleep last night		
10	I feel that I slept well last night		
11	I didn't sleep a wink last night		
12	I didn't have trouble falling asleep last night		
13	After I woke up last night, I had trouble falling asleep again.		
14	I tossed and turned all night last night		
15	I didn't get more than 5 hours sleep last night		

It has been previously used in many studies.

The first question does not count for the total score.

One point is awarded if answer is true to questions :2,3,4,5,6,7,9,11,13,14,15

One point is awarded if answer is false to questions: 8,10,12.

SLEEP QUALITY	SCORE
Good sleep	1 – 2
Average sleep	3 – 5
Disturbed sleep	6 – 15

தற்குறிப்புகள்

வரிசை எண்:

1. வயது
   அ) 30-40 வயது
   ஆ) 41-50 வயது
   இ) 51-60 வயது
   ஈ) 61 வயதிற்கு மேல்

2. மதம்
   அ) இந்து
   ஆ) கிறிஸ்தவர்
   இ) இஸ்லாமியர்

3. கல்வித் தகுதி
   அ) முறையான பள்ளிப்படிப்பு இல்லை
   ஆ) தொடக்க நிலைக் கல்வித் தகுதி
   இ) உயர்நிலைக் கல்வித் தகுதி
   ஈ) மேல்நிலைக் கல்வித் தகுதி
   உ) கல்லூரிக் கல்வித் தகுதி

4. தொழில் தகுதி
   அ) இல்லத்தரசி
   ஆ) தினக்கூலி
   இ) சுயத் தொழில்
   ஈ) அரசுப் பணி
   உ) தனியார் தொழில்

5. மாத குடும்ப வருமானம்
   அ) ரூ. 3000க்கு கீழ்
   ஆ) ரூ. 3001-5000
   இ) ரூ. 5001-10000
   ஈ) ரூ. 10000க்கு மேல்

6. திருமண தகுதி

அ) மணமானவர்

ஆ) மணமாகாதவர்

இ) விவாகரத்தானவர்

ஈ) விதவை - துணை இழந்தவர்

7. குடும்ப வகை

அ) தனிக்குடும்பம்

ஆ) கூட்டுக்குடும்பம்

இ) விரிவான குடும்பம்

8. இருப்பிடம்

அ) நகரம்

ஆ) கிராமம்

9. உணவுப் பழக்கம்

அ) சைவம்

ஆ) அசைவம்

10. நோயின் கால அளவு

அ) 1 வருடம்

ஆ) 1 வருடம் முதல் 3 வருடம் வரை

இ) 3 வருடத்திற்கு மேல்

11. சிகிச்சையின் கால அளவு

அ) 1வருடம்

ஆ) 1வருடம் முதல் 3 வருடம் வரை

இ) 3 வருடத்தீற்கு மேல்

12. சிகிச்சை வகை

அ) கதிர்வீச்சு சிகிச்சை

ஆ) வேதியியல் மருந்து சிகிச்சை

இ) அறுவை சிகிச்சை

ஈ) சேர்ந்தது.

வலிக்கான எண் அளவுகோல்

கீழ்க்காணும் வலிக்கான எண் அளவுகோலில் உங்களுக்கு ஏற்படும் வலியின் அளவையும் அதனுடைய தீவிரத்தையும் தொட்டுக் காட்டவும்.

வலிஇல்லை 0----1----2----3----4----5----6----7----8---9----10 **தாங்க முடியாத வலி**

வலி இல்லை	-	0
இலேசான வலி	-	1-3
மிதமான வலி	-	4-6
மிகுந்த வலி	-	7-9
தாங்க முடியாத வலி	-	10

கிரானின்ஜனின் உறக்கதன்மைகள் அளவுகோல்

தேதி :

நேரம் :

வ. எண்	விளக்கம்	சரி	தவறு
1.	நான் நேற்று இரவு ஆழ்ந்த உறக்கத்தில் இருந்தேன்		
2.	நான் நேற்று இரவு குறைவாக தூங்கியது போல் உணர்கிறேன்.		
3.	நேற்று இரவு எனக்கு தூக்கம் வருவதற்கு அரைமணி நேரத்திற்கு மேல் ஆனது		
4.	நான் நேற்று இரவு பலமுறை தூக்கத்திலிருந்து விழித்துக் கொண்டேன்		
5.	நான் காலையில் எழுந்த பிறகு களைப்பாக இருப்பது போல் உணர்கிறேன்		
6.	நான் நேற்று இரவு போதுமான உறக்கம் இல்லாதது போல் உணர்கிறேன்		
7.	நான் நடு இரவில் விழித்துக் கொண்டேன்		
8.	நான் காலையில் தூங்கி எழுந்த பிறகு களைப்புடன் இருப்பதாக உணர்கிறேன்		
9.	நான் நேற்று இரவு இரண்டு மணி நேரம் மட்டும் தூங்கியதாக உணர்கிறேன்		
10.	நான் நேற்று இரவு நன்றாகத் தூங்கியதாக உணர்கிறேன்		
11.	நான் நேற்று இரவு சிறிது நேரம் கூட தூங்கவில்லை		
12.	நான் நேற்று இரவு எவ்வித இடையூறுமின்றி உறங்கினேன்		

வ. எண்	விளக்கம்	சரி	தவறு
13.	நான் நேற்று இரவு தூங்கி எழுந்த பிறகும் தூக்கத்தின் தாக்கம் இருந்தது		
14.	நான் நேற்று இரவு முழுவதும் திரும்பித் திரும்பி படுத்தியிருந்தேன்		
15.	நான் நேற்று இரவு 5 மணி நேரத்திற்க்கு மேல் தூங்கவில்லை.		

ஆழ்ந்த தூக்கம் 1 - 2

மிதமான தூக்கம் 3 - 5

குறைவான தூக்கம் 6 - 15

ANNEXURE – C

GUIDED IMAGERY STEPS

1. Please close your eyes
2. Relax all your muscles
3. Take a deep breath in an out…….concentrate on your breathing…….
4. Take a deep breath
5. Do no think about the pain or disturbed sleep
6. Try to follow the instructions. Keep on breath in and out
7. Try to imagine that you see a sun rise, mountain with waterfalls. You are standing below the waterfalls. The water is chill and falling down from the falls. The sky is bright, the meadows are green.....You can hear the sounds of birds singing, river flowing…….
8. There are tall mountains with green meadow
9. Your feet touching the water, the water is cold in the bright sunny morning……
10. You sit beside the pond with your feet immersed in the water enjoying the gentle touch of the water on your feet
11. You forget all your pain and worries
12. Take a deep breath, relax your muscle
13. Slowly relax your muscles one by one ……. Open your eyes

ANNEXURE – D

Letter requesting opinion and suggestion of experts for content validity of the research tool

From

P.Puela Catherin,
II year M.Sc(N),
Sara Nursing College,
Dharapuram.

To

Respected Sir / Madam,

Subject: Letter requesting opinion and suggestions from experts for establishing content validity of the tool.

I am a II Year M.Sc (N) Nursing student in Sara Nursing College. As a partial fulfillment of Masters Degree in nursing, I have selected the topic mentioned below for the research project to be submitted to "The Tamil Nadu Dr.M.G.R. Medical University Chennai".

Topic: "A study to evaluate the effectiveness of Guided imagery in terms of pain and sleep quality among the patients with breast cancer at selected hospital in Trichy district".

Enclosed here with: 1. Proposal
2. Tool

May I request you to kindly validate the following enclosure and give your expert opinion and suggestion for necessary modifications of the tool.

Thanking you in Anticipation

Place: Your's sincerely,
Date: P.Puela Catherin.

ANNEXURE – E

CERTIFICATE OF VALIDATION

This is to Certify that the tool developed by Ms. **P.PUELA CATHERIN** II year M.Sc(N) of Sara Nursing College On a Topic "**A Study to evaluate the effectiveness of Guided Imagery in terms of pain and sleep quality among the patients with breast cancer at selected hospital, Trichy District" ,** has been validated by the undersigned. The Suggestions and modifications given by me will be incorporated by the investigator in collaboration with their respective guide.

Name: Signature:

Designation:

Date:

ANNEXURE - F

LIST OF EXPERTS

1. **Prof. Mrs. Vijayarani Prince, M.Sc (N),**
   Principal,
   Bishop's College of Nursing,
   Dharapuram .

2. **Prof. Mrs. Poonguzhali, M.Sc (N), M.A,**
   Department of Medical and Surgical Nursing,
   College of Nursing,
   Madurai Medical College,
   Madurai.

3. **Prof. Mrs. Neela, M.Sc (N),**
   Principal,
   Swami Vivekanandha College of Nursing,
   Dharmapuri.

4. **Mrs. Geetha, M.Sc (N),**
   Lecturer,
   Department of Medical and Surgical Nursing
   Bishop's College of Nursing,
   Dharapuram.

5. **Dr.Arun Seshachalam,MD,DNB,MNAMS,DM,**
   Medical Oncologist.
   GVN Hospital,
   Trichy.

ANNEXURE - G

ENGLISH EDITING CERTIFICATE

I here by certify that, I have edited the work of Ms. P.Puela Catherin II[nd] year MSc(N)., student of Sara Nursing college, Dharapuram who is under dessertation work on "A study to evaluate the effectiveness of guided imagery in terms of pain and sleep quality among the patients with breast cancer at selected Hospital in Trichy District."

Date:

Signature

S. Saminathan selvaraj,
M.A., M.Ed., M.Phil.,
P.G.Assistant (Economics)
St.Xaviers Higher Secondary School
Purathakudy - 621 011.
Trichy (Dt)

TAMIL EDITING CERTIFICATE

I here by certify that, I have edited the work of Ms. P.Puela Catherin II[nd] year MSc(N)., student of Sara Nursing college, Dharapuram who is under dessertation work on "A study to evaluate the effectiveness of guided imagery in terms of pain and sleep quality among the patients with breast cancer at selected Hospital in Trichy District."

Name: S.K.SENTHILKUMAR

Designation: LECTURER IN TAMIL

Date : 24.06.2011

S.K.Senthilkumar

Signature :

S.K.SENTHILKUMAR, M.A., M.Phil., M.Ed.,
Lecturer in Tamil
ANNAI FATHIMA
TEACHER TRAINING COLLEGE
DHARAPURAM - 638 673.